## **ENVIRONMENTAL CHEMISTS**

Date of Report: 04/04/02 Date Received: 03/28/02

Project: Metro Self Monitor, PO# M67778

Date Extracted: 03/29/02 Date Analyzed: 04/01/02

# RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

| Sample ID            | <u>Chromium</u>    | Copper           | Nickel Zinc                |
|----------------------|--------------------|------------------|----------------------------|
| Laboratory ID        | 기타고 기명된 다리모르노      | 들은 ' 등문한 유원다' 보다 |                            |
| After alaine eighte. |                    |                  |                            |
| M67778               | 0.31               | 0.41             | 0.21 <0.05                 |
| 203216-01            | . Atta 284 - 286 b |                  | 다시 시간 경우 나는 얼마나 다른 사고를 했다. |
|                      |                    |                  |                            |
|                      |                    |                  |                            |
| Method Blank         | < 0.05             | < 0.05           | <0.05                      |

## **ENVIRONMENTAL CHEMISTS**

Date of Report: 04/04/02 Date Received: 03/28/02

Project: Metro Self Monitor, PO# M67778

# QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 203216-01 (Duplicate)

|   |          |            | Reporting  | Sample | Duplicat | Relative<br>e Percent | Acceptance |    |
|---|----------|------------|------------|--------|----------|-----------------------|------------|----|
|   | Analyte  | PER MARKET | Units      | Result | Result   |                       | Criteria   | l. |
| Į | Chromium |            | mg/L (ppm) | 0.31   | 0.32     | 3                     | 0-20       |    |
|   | Copper   |            | mg/L (ppm) | 0.41   | 0.43     | 5                     | 0-20       |    |
|   | Nickel   |            | mg/L (ppm) | 0.21   | 0.22     | 5                     | 0-20       |    |
|   | Zinc     |            | mg/L (ppm) | < 0.05 | < 0.05   | nm                    | 0-20       |    |

Laboratory Code: 203216-01 (Matrix Spike)

|      | ykiruski Y | Reporting | Spike | Sample | % Recov | ery % Recov | ery Acceptance | ee RPD     |
|------|------------|-----------|-------|--------|---------|-------------|----------------|------------|
| ı İ. | Analyte    | Units     | Level | Result | MS      | MSD         | Criteria       | (Limit 20) |
| . Ñ  | Chromium   | mg/L (ppm | ı) 2  | 0.31   | 103     | 100         | 80-120         | 3          |
|      | Copper     | mg/L (ppm | n) 2  | 0.41   | 100     | 97          | 80-120         | 3          |
|      | Nickel     | mg/L (ppm | 1) 4  | 0.21   | 98      | 98          | 80-120         | 0          |
|      | Zinc       | mg/L (ppm | ı) 2  | < 0.05 | 106     | 105         | 80-120         |            |

Laboratory Code: Laboratory Control Sample

|          | Reporting  | Spike % | Recovery | % Recovery | Acceptance | RPD        |
|----------|------------|---------|----------|------------|------------|------------|
| Analyte  | Units      | Level   | LCS      | LCSD       | Criteria   | (Limit 20) |
| Chromium | mg/L (ppm) | 2       | 108      | 111        | 80-120     | 3          |
| Copper   | mg/L (ppm) | 2       | 106      | 110        | 80-120     | 4          |
| Nickel   | mg/L (ppm) | 4       | 104      | 107        | 80-120     | 3          |
| Zinc     | mg/L (ppm) | 2       | 108      | 113        | 80-120     | 5          |

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

April 4, 2002

## **DUPLICATE COPY**

## **INVOICE # 02ACU0404-1**

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M67778 - Results of testing requested by Gerry Thompson for material submitted on March 28, 2002.

FEDERAL TAX ID #(b) (6)

| 203216 sa  | MPLE CHAIN OF CUSTODY                         | M€              | 3/28/02 BI3  |
|--|---|-----------------|--|
| Send Report To ZERACD Thompson  Company ALASKAN Copper Works  Address 628 S. HANGER ST | PROJECT NAME/NO.  METRO SECT MONIFER          | PO#             | Page # of  TURNAROUND TIME  Standard (2 Weeks)  RUSH_  Rush charges authorized by: |
| City, State, ZIP SEASHR LA 98134  Phone # 206-782-8379 Fax # 206-782-4389              | REMARKS                                       |                 | SAMPLE DISPOSAL  Dispose after 30 days Return samples Will call with instructions  |
|  | AA (20 12 12 12 12 12 12 12 12 12 12 12 12 12 | ALYSES REQUESTI | ED   |

|           |           |                 |                 |             |                    | ANALYSES REQUESTED |              |               |              |               |     |             |  |  |    |       |  |
|-----------|-----------|-----------------|-----------------|-------------|--------------------|--------------------|--------------|---------------|--------------|---------------|-----|-------------|--|--|----|-------|--|
| Sample ID | Lab<br>ID | Date<br>Sampled | Time<br>Sampled | Sample Type | # of<br>containers | TPH-Diesel         | TPH-Gasoline | BTEX by 8021B | VOCs by 8260 | SVOCs by 8270 | HFS | CACL, N; 2~ |  |  | i. | Notes |  |
| m 67778   | 01        | 3/afor          | 10:30           | HO          | 1                  | ·                  |              |               |              |               |     | J           |  |  |    |       |  |
|           |           |                 |                 | *           | ·                  |                    |              |               |              |               |     |             |  |  |    |       |  |
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| ř         |           | •               |                 |             |                    |                    |              |               |              |               |     |             |  |  |    |       |  |
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| Frie | dm   | an 8  | Br. | uya,  | Inc.  |   |
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| 301  | 2 16 | 6th A | ven | ue II | lest. | ( |
| _    |      |       |     |       |       |   |

Seattle, WA 98119-2029 Ph. (206) 285-8282

Fax (206) 283-5044

| SIGNATURE        | PRINT NAME      | COMPANY | DATE    | TIME  |
|------------------|-----------------|---------|---------|-------|
| Relinquisher by: | GERAOD Thompson | ACW     | 3/2/02  | 10,50 |
| Received by:     | ERIC YOU'R      | FBING.  | 3/28/02 | 10:00 |
| Relinquished by: | ) [9            | ·       |         | :•    |
| Received by:     |                 |         |         |       |

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### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

April 4, 2002

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on March 28, 2002 from your Metro Self Monitor, PO# M67778 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Charlene Morrow for

Michael Erdahl Project Manager

Enclosures ACU0404R.DOC